May 22, 2003 Certified Mail #9058 7753

Joseph Zemen
Environmental, Health and Safety Manager
Wolf Lake Terminals, Inc.
3200 Sheffield Avenue
Hammond, Indiana 46325

Re: Registered Construction and Operation Status,
089-16857-00230

Dear Mr. Zemen:

The application from Wolf Lake Terminals, Inc. received on November 27, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following Storage Tank Facility located at 3200 Sheffield Avenue, Hammond, Indiana, is classified as registered:

Tank ID	Date Built	Dia. (feet)	Height (feet)	Volume (gallons)	Product	Vapor Pressure (psi)	Throughput (gal/year)
1	1951	30	24	127,000	Propylene Glycol	0.004 @ 68°F	1,000,000
5	1951	30	24	127,000	Propylene Glycol/PNB	0.012 @ 68°F	1,000,000
8	1951	30	24	127,000	Poly PNB	0.012 @ 68°F	500,000
9	1951	30	24	127,000	Glycol	0.012 @ 68°F	250,000
10	1951	30	24	127,000	Propylene Glycol/PNB	0.012 @ 68°F	1,000,000
11	1951	30	24	127,000	PNP/PNB Mix	0.033 @ 68°F	500,000
14	1951	30	24	127,000	Propylene Carbonate/ HP	0.019 @ 77°F	1,000,000
15	1951	30	24	127,000	DPNB	0.019 @ 68°F	1,000,000
19	1951	30	24	127,000	Empty		
20	1951	30	24	127,000	DPNB	0.019 @ 68°F	1,000,000
45	1951	42	39.5	410,000	Triethanol-amine	0.009 @ 68°F	1,500,000

Tank ID	Date Built	Dia. (feet)	Height (feet)	Volume (gallons)	Product	Vapor Pressure (psi)	Throughput (gal/year)
50	1951	42	39.5	410,000	DPNP	0.00096 @ 77°F	1,500,000
56	1951	30	24	127,000	Glycol	0.0019 @ 77°F	500,000
57	1951	30	24	127,000	DPNP	0.00967 @ 77°F	1,000,000
60	1951	30	24	127,000	Diesel Fuel	0.007 @ 68°F	500,000
61	1951	30	24	127,000	Glycol	0.0019 @ 77°F	500,000
65	1951	30	24	127,000	Diethanol-amine	0.01@68°F	1,000,000
66	1951	30	24	127,000	Poly PNB	0.012 @ 68°F	250,000
69	1951	30	24	127,000	Glycol	0.0019 @ 77°F	504,000
70	1951	30	24	127,000	Mono-ethanol-amine	0.0035 @ 68°F	1,000,000
75	1951	42	39.5	410,000	Glycol	0.0019 @ 77°F	0
76	1951	42	39.5	41,000	Glycol	0.0019 @ 77°F	0
86	1994	25	24	88,000	Morpholine	0.122487 @ 68°F	2,000,000
87	1994	25	24	88,000	Octaflow Concen-trate (glycol)	0.004 @ 68°F	2,000,000
88	1994	25	24	88,000	Mono-ethanol-amine	0.02 @ 68°F	50,000
100	1996	12	18	15,000	Cetane Improver	0.02 @ 68°F	100,000
101	1996	12	18	15,000	DPG	0.002 @ 68°F	100,000
102	1996	12	18	15,000	Fuel Additives	0.02 @ 68°F	78,000
103	1996	12	18	16,000	DPG	0.002 @ 68°F	100,000
104	1996	14	28	32,000	Infineum 7591	0.005 @ 68°F	78,000
107	1999	24	23	78,000	Max Flite	0.004 @ 68°F	78,000
108	1999	16	13	20,000	De-icer	0.004 @ 68°F	20,000
109	1999	16	13	20,000	PGI Blend	0.004 @ 68°F	27,000
110	1999	16	13	20,000	PGI Blend	0.004 @ 68°F	27,000

Tank ID	Date Built	Dia. (feet)	Height (feet)	Volume (gallons)	Product	Vapor Pressure (psi)	Throughput (gal/year)
111	1999	17	16	27,000	PGI Blend	0.004 @ 68°F	27,000
112	1999	17	16	27,000	PGI Blend	0.004 @ 68°F	27,000
113	1999	17	16	27,000	PGI Blend	0.004 @ 68°F	27,000
115	2000	6	12	2,500	PGI Blend	0.004 @ 68°F	2,500
116	2000	6	12	2,500	PGI Blend	0.004 @ 68°F	2,500
119	2001	12	36	30,000	Surfonic L-24-13	0.003 @ 68°F	30,000
120	2001	12	36	30,500	N120	0.122 @ 68°F	30,000
122	2001	12	18	15,000	N60	0.017498 @ 68°F	30,000

(a) One (1) Kewanee Boiler, with a maximum heat input of 25.1 MMBtu/hr, burning natural gas only and uncontrolled emissions.

(b) One (1) Cleaver Brooks Boiler, with a maximum heat input of 9.0 MMBtu/hr, burning natural gas only and uncontrolled emissions.

The following conditions shall be applicable:

Pursuant to 326 IAC 12 and 40 CFR Part 60, the following New Source Performance Standards are applicable to the source:

The Kewanee Boiler is subject to the requirements of New Source Performance Standard 326 IAC 12, 40 CFR 60.40c through 60.48c, Subpart Dc (Standards of Performance for Small Industrial – Commercial – Institutional Steam Generating Units). Since this unit only combusts natural gas, only section 60.48c Reporting and Recordkeeping requirements apply. 60.48(g) requires that the source record and maintain records of the amounts of each fuel combusted during each day.

The tanks at Wolf Lake Terminals are subject to the requirements of New Source Performance Standard 326 IAC 12, 40 CFR Part 60 Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels). Tanks built after 7/23/84 that have a capacity greater than 75 m^3 with vapor pressure less than 3.5 kPa are subject to 60.116b to have dimensions and capacity analysis available. These tanks are as follows: 86, 87, 88, 104, 107, 108, 109, 110, 111, 112, 113, 119 and 120.

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

(a) Opacity shall not exceed an average of twenty percent (20%) during any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

Pursuant to 326 IAC 2-6 (Emission Reporting)

Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

Pursuant to 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Tanks 1, 5, 8, 9, 10, 11, 14, 15, 19, 20, 45, 50, 56, 57, 60, 61, 65, 66, 69, 70, 75 and 76 are subject to rule 326 IAC 8-9. These tanks have a capacity greater than 39,000 gallons but the vapor pressure of the VOL is less than 0.5 psi. The only requirements in the rule for these tanks are 8-9-6(a), 8-9-6(b) and 8-9-6(h).

Tanks 86, 87, 88, 104, 107, 108, 109, 110, 111, 112, 113, 119 and 120 are not subject to rule 8-9, these tanks are exempt from 326 IAC 8-9 by 326 IAC 8-9-2(8); the tanks have Kb apply.

Tanks 100, 101, 102, 103, 115, 116 and 122 are subject to rule 326 IAC 8-9. These tanks have a capacity less that 39,000 gallons. The only requirements are 326 8-9-6(a) and 8-9-6(b) according to 8-9-1(b).

Pursuant to Hammond Air Quality Control Ordinance No. 3522 (as amended)

Particulate emissions from the combustion of natural gas, for the Cleaver Brooks Boiler are limited to 0.2996 pounds per hour as governed by the Hammond Air Quality Control Ordinance No. 3522 (as amended).

Particulate emissions from the combustion of natural gas, for the Kewanee Boiler are limited to 0.8355 pounds per hour as governed by the Hammond Air Quality Control Ordinance No. 3522 (as amended).

Since the products stored in the tanks vary greatly, pursuant to Hammond Air Quality Control Ordinance No. 3522 (as amended) the Company shall submit monthly reports containing the tank identification number, capacity, product stored, throughput and vapor pressure.

This registration is the first State registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality, and the Hammond Department of Environmental Management, that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
Indianapolis, IN 46206-6015

and

Hammond Department of Environmental
Management
Air Pollution Control Division
5925 Calumet Avenue
Hammond, Indiana 46320

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 and the Hammond Air Quality Control Ordinance #3522 (as amended), if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Ronald Novak, Director
Hammond Department of Environmental Management

KM

cc: Permits Administrator – Mindy Hahn

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

Company Name:	Wolf Lake Terminals, Inc.
Address:	3200 Sheffield Avenue
City:	Hammond
Authorized Individual:	Joseph Zemen
Phone #:	(219) 937-4460
Registration #:	089-16857-00230

I hereby certify that Wolf Lake Terminals, Inc. is still in operation and is in compliance with the requirements of Registration 089-16857-00230.

Name (typed):	Joseph Zemen
Title:	Environmental Health and Safety Manager
Signature:	
Date:	

Indiana Department of Environmental Management
Office of Air Quality
and
Hammond Department of Environmental Management
Air Pollution Control Division

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: Wolf Lake Terminals, Inc.
Source Location: 3200 Sheffield Avenue, Hammond, Indiana 46325
County: Lake County
SIC Code: 4226 – Special Warehousing/Storage
Operation Permit No.: 089-16857-00231
Permit Reviewer: Kristina Massey

The Hammond Department of Environmental Management (HDEM) has reviewed an application from Wolf Lake Terminals, Inc., relating to the operation of the Storage Tank Facility.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

The following tanks are vertical, above ground, fixed cone roof tanks, without internal floating roofs, holding products with a vapor pressure less than 0.51 psi.

Tank ID	Date Built	Dia. (feet)	Height (feet)	Volume (gallons)	Product	Vapor Pressure (psi)	Throughput (gal/year)
1	1951	30	24	127,000	Propylene Glycol	0.004 @ 68°F	1,000,000
5	1951	30	24	127,000	Propylene Glycol/PNB	0.012 @ 68°F	1,000,000
8	1951	30	24	127,000	Poly PNB	0.012 @ 68°F	500,000
9	1951	30	24	127,000	Glycol	0.012 @ 68°F	250,000
10	1951	30	24	127,000	Propylene Glycol/PNB	0.012 @ 68°F	1,000,000
11	1951	30	24	127,000	PNP/PNB Mix	0.033 @ 68°F	500,000
14	1951	30	24	127,000	Propylene Carbonate/ HP	0.019 @ 77°F	1,000,000
15	1951	30	24	127,000	DPNB	0.019 @ 68°F	1,000,000
19	1951	30	24	127,000	Empty		
20	1951	30	24	127,000	DPNB	0.019 @ 68°F	1,000,000

Tank ID	Date Built	Dia. (feet)	Height (feet)	Volume (gallons)	Product	Vapor Pressure (psi)	Throughput (gal/year)
45	1951	42	39.5	410,000	Triethanol-amine	0.009 @ 68°F	1,500,000
50	1951	42	39.5	410,000	DPNP	0.00096 @ 77°F	1,500,000
56	1951	30	24	127,000	Glycol	0.0019 @ 77°F	500,000
57	1951	30	24	127,000	DPNP	0.00967 @ 77°F	1,000,000
60	1951	30	24	127,000	Diesel Fuel	0.007 @ 68°F	500,000
61	1951	30	24	127,000	Glycol	0.0019 @ 77°F	500,000
65	1951	30	24	127,000	Diethanol-amine	0.01@68° F	1,000,000
66	1951	30	24	127,000	Poly PNB	0.012 @ 68°F	250,000
69	1951	30	24	127,000	Glycol	0.0019 @ 77°F	504,000
70	1951	30	24	127,000	Monoethanol-amine	0.0035 @ 68°F	1,000,000
75	1951	42	39.5	410,000	Glycol	0.0019 @ 77°F	0
76	1951	42	39.5	410,000	Glycol	0.0019 @ 77°F	0
86	1994	25	24	88,000	Morpholine	0.004 @ 68°F	2,000,000
87	1994	25	24	88,000	Deicing Fluid	0.004 @ 68°F	2,000,000
88	1994	25	24	88,000	Monoethanol-amine	0.02 @ 68°F	50,000
100	1996	12	18	15,000	Cetane Improver	0.02 @ 68°F	100,000
101	1996	12	18	15,000	DPG	0.002 @ 68°F	100,000
102	1996	12	18	15,000	Cetane Improver	0.005 @ 68°F	78,000
103	1996	12	18	15,000	DPG	0.002 @ 68°F	100,000
104	1996	14	28	32,000	Cetane Improver	0.005 @ 68°F	78,000
107	1999	24	23	78,000	Max Flite	0.004 @ 68°F	78,000
108	1999	16	13	20,000	De-icer	0.004 @ 68°F	20,000
109	1999	16	13	20,000	PGI Blend	0.004 @ 68°F	27,000
110	1999	16	13	20,000	PGI Blend	0.004 @ 68°F	27,000
111	1999	17	16	27,000	PGI Blend	0.004 @ 68°F	27,000
112	1999	17	16	27,000	PGI Blend	0.004 @ 68°F	27,000

Tank ID	Date Built	Dia. (feet)	Height (feet)	Volume (gallons)	Product	Vapor Pressure (psi)	Throughput (gal/year)
113	1999	17	16	27,000	PGI Blend	0.004 @ 68°F	27,000
115	2000	6	12	2,500	PGI Blend	0.004 @ 68°F	2,500
116	2000	6	12	2,500	PGI Blend	0.004 @ 68°F	2,500
119	2001	12	36	30,000	Surfonic L-24-13	0.003@ 68°F	30,000
120	2001	12	36	30,500	N120	0.122 @ 68°F	30,000
122	2001	12	18	15,000	N60	0.175 @ 68°F	30,000

One (1) Kewanee Boiler, with a maximum heat input of 25.1 MMBtu/hr, burning natural gas only and uncontrolled emissions.

One (1) Cleaver Brooks Boiler, with a maximum heat input of 9.0 MMBtu/hr, burning natural gas only and uncontrolled emissions.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

Forty-two (42) permits numbered 02027 through 02068, all issued on February 4, 2002.

All conditions from previous approvals were incorporated into this permit.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
Kewanee	Boiler	52	4	7000	375
Cleaver Brooks	Boiler	52	4	7000	375

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Director that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 27, 2002, with additional information received on February 26, 2003 and April 11, 2003.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (four (4) pages).

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	1.135
PM-10	1.135
SO_2	0.090
VOC	24.747
CO	12.546
NO_x	14.936

HAP's	Potential To Emit (tons/year)
Total of all HAP's	<10

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants are less than 100 tons per year, and less than 25 tons of VOC for this source located in Lake County. Therefore, the source is not subject to the provisions of 326 IAC 2-7. However the potential to emit VOC and NOX is greater than 10 tons per year, therefore the source is subject to 326 IAC 2-5-5 (registration).

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7- 1(29)) of any combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2001 HDEM emissions data.

Pollutant	Actual Emissions (tons/year)
PM	0.114
PM-10	0.114
SO_2	0.009
VOC	10.028
CO	1.260
NO_x	1.500
HAP (total)	<10

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM-10	Moderate nonattainment
SO_2	Primary nonattainment
NO_2	Attainment
Ozone	Severe nonattainment
CO	Attainment/unclassifiable
Lead	Attainment/unclassifiable

(a) Lake County has been classified as attainment or unclassifiable for NO2, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as severe nonattainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(c) Lake County has been classified as nonattainment for PM-10 and SO2. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	1.135
PM10	1.135
SO_2	0.090
VOC	24.7477
CO	12.546
NO_x	14.936

(a) This existing source is **not** a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or VOCs emitted at a rate greater than 25 tons per year from a source in Lake County, and it is not in one of the 28 listed source categories.

(b) These emissions were based on information from their registration application.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the Hammond Department of Environmental Management (HDEM).

Federal Rule Applicability

(a) The following New Source Performance Standards (326 IAC 12 and 40 CFR Part 60) are applicable to the source:

The Kewanee Boiler is subject to the requirements of New Source Performance Standard 326 IAC 12, 40 CFR 60.40c through 60.48c, Subpart Dc (Standards of Performance for Small Industrial – Commercial – Institutional Steam Generating Units). Since this unit only combusts natural gas, only section 60.48c Reporting and Recordkeeping requirements apply. 60.48(g) requires that the source record and maintain records of the amounts of each fuel combusted during each day.

The tanks at Wolf Lake Terminals are subject to the requirements of New Source Performance Standard 326 IAC 12, 40 CFR Part 60 Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels). Tanks built after 7/23/84 that have a capacity greater than 75 m^3 with vapor pressure less than 3.5 kPa are subject to 60.116b to have dimensions and capacity analysis available. These tanks are as follows: 86, 87, 88, 104, 107, 108, 109, 110, 111, 112, 113, 119 and 120.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC in Lake County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations) opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of twenty percent (20%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Tanks 1, 5, 8, 9, 10, 11, 14, 15, 19, 20, 45, 50, 56, 57, 60, 61, 65, 66, 69, 70, 75 and 76 are subject to rule 326 IAC 8-9. These tanks have a capacity greater than 39,000 gallons but the vapor pressure of the VOL is less than 0.5 psi. The only requirements in the rule for these tanks are 8-9-6(a), 8-9-6 (b) and 8-9-6(h).

Tanks 86, 87, 88, 104, 107, 108, 109, 110, 111, 112, 113, 119 and 120 are not subject to rule 8-9, these tanks are exempt from 326 IAC 8-9 by 326 IAC 8-9-2(8); the tanks have Kb apply.

Tanks 100, 101, 102, 103, 115, 116 and 122 are subject to rule 326 IAC 8-9. These tanks have a capacity less that 39,000 gallons. The only requirements are 326 8-9-6(a) and 8-9-6(b) according to 8-9-1(b).

State Rule Applicability - Individual Facilities

326 IAC 6-1 (Particulate Emissions)

The Kewanee Boiler is not subject to 326 IAC 6-1 because the source does not emit more than 10 tons per year of particulates and the potential to emit for the source is less than 100 tons per year.

326 IAC 6-2-2 (Particulate Emission Limitations)

Particulate emissions from existing indirect heating facilities located in Lake County (prior to September 21, 1983) shall be limited by the following equation:

$$Pt = 0.87/Q^{0.16}$$

Where Pt = pounds of particulate matter emitted per million Btu heat input
Q = total source operating capacity rating in million Btu/hour heat input.
The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Q = 9mmBtu/hr

Pt is calculated to be 0.612 pounds per million Btu, which is equivalent to 5.51 pounds per hour.

Particulate emissions from the combustion of natural gas are limited by the Hammond Air Quality Control (HAQC) Ordinance No. 3522 (as amended), to the potential to emit after controls. The potential emissions for the Cleaver Brooks boiler are 0.2996 pounds per hour, which is more stringent than 5.51 pounds per hour by using 326 IAC 6-2 Particulate Emission Limitations for Sources of Indirect Heating. By showing compliance to the HAQC Ordinance limit, the source is in compliance with 326 IAC 6-2-2.

326 IAC 6-2-4 (Particulate Emission Limitations)

Particulate emissions from indirect heating facilities constructed after September 21, 1983 shall be limited by the following equation:

$$Pt= 1.09/Q^{0.26}$$

Where Pt = pounds of particulate matter emitted per million Btu heat input
Q = total source operating capacity rating in million Btu/hour heat input.
The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Q = 34.1 mmBtu/hr

Pt is calculated to be 0.435 pounds per million Btu, which is equivalent to 14.83 pounds per hour.

Particulate emissions from the combustion of natural gas are limited by the Hammond Air Quality Control (HAQC) Ordinance No. 3522 (as amended), to the potential to emit after controls. The potential emissions for the Kewanee boiler are 0.8355 pounds per hour, which is more stringent than 14.83 pounds per hour by using 326 IAC 6-2 Particulate Emission Limitations for Sources of Indirect Heating. By showing compliance to the HAQC Ordinance limit, the source is in compliance with 326 IAC 6-2-4.

Local Ordinance Applicability

Since the products stored in the tanks vary greatly, pursuant to Hammond Air Quality Control Ordinance No. 3522 (as amended) the Company shall submit monthly reports containing the tank identification number, capacity, product stored, throughput and vapor pressure.

Conclusion

The operation of this Storage Tank Facility shall be subject to the conditions of the attached proposed State Registration and Local Operation Permits.

Calculation Summary Table

Tank ID	Diameter (feet)	Height (feet)	Volume (gallons)	Product	Vapor Pressure (psi)	Throughput (gal/year)	* Potential Emissions (TPY)	Actual Emissions (TPY)
1	30	24	127,000	Propylene Glycol	0.004 @ 68°F	1,000,000	0.8255	0.0113
5	30	24	127,000	Propylene Glycol/PNB	0.012 @ 68°F	1,000,000	0.4255	0.0340
8	30	24	127,000	Poly PNB	0.012 @ 68°F	500,000	0.6244	0.0247
9	30	24	127,000	Glycol	0.012 @ 68°F	250,000	0.5278	0.0032
10	30	24	127,000	Propylene Glycol/PNB	0.012 @ 68°F	1,000,000	0.8232	0.0340
11	30	24	127,000	PNP/PNB Mix	0.033 @ 68°F	500,000	0.6192	0.0684
14	30	24	127,000	Propylene Carbonate/ HP	0.019 @ 77°F	1,000,000	0.8209	0.0539
15	30	24	127,000	DPNB	0.019 @ 68°F	1,000,000	0.8209	0.0539
19	30	24	127,000	Empty			0.8181	0.0939
20	30	24	127,000	DPNB	0.019 @ 68°F	1,000,000	0.8209	0.0539
45	42	39.5	410,000	Triethanol-amine	0.009 @ 68°F	1,500,000	1.8523	0.0580
50	42	39.5	410,000	DPNP	0.00096 @ 77°F	1,500,000	1.8582	0.0062
56	30	24	127,000	Glycol	0.0019 @ 77°F	500,000	0.6272	0.0039
57	30	24	127,000	DPNP	0.00967 @ 77°F	1,000,000	0.8238	0.0274
60	30	24	127,000	Diesel Fuel	0.007 @ 68°F	500,000	0.6255	0.0144
61	30	24	127,000	Glycol	0.0019 @ 77°F	500,000	0.6272	0.0039
65	30	24	127,000	Diethanol-amine	0.01 @ 68°F	1,000,000	0.8238	0.0255
66	30	24	127,000	Poly PNB	0.012 @ 68°F	250,000	0.5249	0.0201
69	30	24	127,000	Glycol	0.0019 @ 77°F	504,000	0.6288	0.0039
70	30	24	127,000	Monoethanol-amine	0.0035 @ 68°F	1,000,000	0.8256	0.0099
75	42	39.5	410,000	Glycol	0.0019 @ 77°F	1.000,000	1.6585	0.0108
76	42	39.5	410,000	Glycol	0.0019 @ 77°F	1,000,000	1.6585	0.0108
86	25	24	88,000	Morpholine	0.004 @ 68°F	2,000,000	1.0915	0.0159

Tank ID	Diameter (feet)	Height (feet)	Volume (gallons)	Product	Vapor Pressure (psi)	Throughput (gal/year)	* Potential Emissions (TPY)	Actual Emissions (TPY)
87	25	24	88,000	Deicing Fluid	0.004 @ 68°F	2,000,000	1.0915	0.0159
88	25	24	88,000	Monoethanol-amine	0.02 @ 68°F	50,000	0.2968	0.0194
100	12	18	15,000	Cetane Improver	0.02 @ 68°F	100,000	0.0919	0.0062
101	12	18	15,000	DPG	0.002 @ 68°F	100,000	0.0925	0.0006
102	12	18	15,000	Cetane Improver	0.005 @ 68°F	78,000	0.0837	0.0014
103	12	18	15,000	DPG	0.002 @ 68°F	100,000	1.0925	0.0006
104	14	28	32,000	Cetane Improver	0.005 @ 68°F	78,000	0.1357	0.0022
107	24	23	78,000	Max Flite	0.004 @ 68°F	78,000	0.2940	0.0036
108	16	13	20,000	De-icer	0.004 @ 68°F	20,000	0.0785	0.0009
109	16	13	20,000	PGI Blend	0.004 @ 68°F	27,000	0.0813	0.0010
110	16	13	20,000	PGI Blend	0.004 @ 68°F	27,000	0.0813	0.0010
111	17	16	27,000	PGI Blend	0.004 @ 68°F	27,000	0.1066	0.0013
112	17	16	27,000	PGI Blend	0.004 @ 68°F	27,000	0.1066	0.0013
113	17	16	27,000	PGI Blend	0.004 @ 68°F	27,000	0.1066	0.0013
115	6	12	2,500	PGI Blend	0.004 @ 68°F	2,500	0.0101	0.0001
116	6	12	2,500	PGI Blend	0.004 @ 68°F	2,500	0.0101	0.0001
119	12	36	30,500	Surfonic L-24-13	0.003@68°F	30,000	0.5277	0.0010
120	12	36	30,500	N120	0.122 @ 68°F	30,000	0.0989	0.0427
122	12	18	15,000	N60	0.175 @ 68°F	30,000	0.0584	0.0368
TOTALS							**23.9267**	**0.7767**

* Potential Emissions based on product with the highest vapor pressure in the past three years (0.275 psia @ 68 °F)

ALABAMA POWER LAW (CDS)/EIS CALCULATIONS

Wolf Lake Terminals, Inc.
3200 Sheffield Avenue
Hammond, Indiana 46325

PLANT ID NO: 089-00230
INSP DATE: 8/17/01
CALC DATE: 4/30/02

CALCULATIONS BY: Kristina Massey

YEAR OF DATA: **REVIEW BOILERS**

NO. OF POINTS: 4

NOTES
EF: EMISSION FACTOR
CE: CONTROL EFFICIENCY
MDR: MAXIMUM DESIGN RATE
MDC: MAXIMUM DESIGN CAPACITY
Ts: STACK DISCHARGE TEMPERATURE
UNITS FOR EMISSIONS ARE IN (TPY) EXCEPT WHERE GIVEN

****

Kewanee 600 HP Boiler
Natural Gas Combustion
CNTRL DEV: NONE

MDC (mmBtu/hr): 25.1
MDR (mmcft/hr): 0.0251
HEAT CONTENT (Btu/cft): 1000
QTY BURNED (mmcft/yr): 29.00
STACK ID (DIAM:HEIGHT): (4: 52)
FLOWRATE (ACFM): 7,000
Ts(°F): 300

PERMITTED OPERATING HRS: **8760** hr/yr

(AP-42, Table 1.4-1, 2, & 3) SCC NO. 1-02-006-02			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(lbs/mmcft)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	7.6	0	0.1908	4.5782	**0.8355**	0.1908	0.8355	N/A	0.1908	0.8355	0.1102	0.1102
PM10	7.6	0	0.1908	4.5782	**0.8355**	0.1908	0.8355	N/A	0.1908	0.8355	0.1102	0.1102
SOx	0.6	0	0.0151	0.3614	**0.0660**	0.0151	0.0660	N/A	0.0151	0.0660	0.0087	0.0087
NOx	100	0	2.5100	60.2400	**10.9938**	2.5100	10.9938	N/A	2.5100	10.9938	1.4500	1.4500
VOC	5.5	0	0.1381	3.3132	**0.6047**	0.1381	0.6047	N/A	0.1381	0.6047	0.0798	0.0798
CO	84	0	2.1084	50.6016	**9.2348**	2.1084	9.2348	N/A	2.1084	9.2348	1.2180	1.2180
LEAD	0.0005	0	0.0000	0.0003	**0.0001**	0.0000	0.0001	N/A	0.0000	0.0001	0.0000	0.0000

*This point is class "Registered" according to potential NOx emissions.
Hammond Air Quality Control Ordinance No. 3522 (as amended)

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Cleaver Brooks Boiler #2
Natural Gas Combustion
CNTRL DEV: NONE

MDC (mmBtu/hr): 9
MDR (mmcft/hr): 0.0090
HEAT CONTENT (Btu/cft): 1000
QTY BURNED (mmcft/yr): 1.0000
STACK ID (DIAM:HEIGHT): (4: 52)
FLOWRATE (ACFM): 7,000
Ts(°F): 300

PERMITTED OPERATING HRS: **8760** hr/yr

(AP-42, Table 1.4-1, 2, & 3) SCC NO. 1-02-006-03			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(lbs/mmcft)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	7.6	0	0.0684	1.6416	**0.2996**	0.0684	0.2996	N/A	0.0684	0.2996	0.0038	0.0038
PM10	7.6	0	0.0684	1.6416	**0.2996**	0.0684	0.2996	N/A	0.0684	0.2996	0.0038	0.0038
SOx	0.6	0	0.0054	0.1296	**0.0237**	0.0054	0.0237	N/A	0.0054	0.0237	0.0003	0.0003
NOx	100	0	0.9000	21.6000	**3.9420**	0.9000	3.9420	N/A	0.9000	3.9420	0.0500	0.0500
VOC	5.5	0	0.0495	1.1880	**0.2168**	0.0495	0.2168	N/A	0.0495	0.2168	0.0028	0.0028
CO	84	0	0.7560	18.1440	**3.3113**	0.7560	3.3113	N/A	0.7560	3.3113	0.0420	0.0420
LEAD	0.0005	0	0.0000	0.0001	**0.0000**	0.0000	0.0000	N/A	0.0000	0.0000	0.0000	0.0000

*This point has potential emissions below the State's registration thresholds.
Hammond Air Quality Control Ordinance No. 3522 (as amended)

Wolf Lake Terminals, Inc.
REVIEW BOILERS

	POTENTIAL EMISSIONS					
	BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)
PM	0.259	6.220	1.135	0.259	1.135	N/A
PM10	0.259	6.220	1.135	0.259	1.135	N/A
SOx	0.020	0.491	0.090	0.020	0.090	N/A
NOx	3.410	81.840	14.936	3.410	14.936	N/A
VOC	0.188	4.501	0.821	0.188	0.821	N/A
CO	2.864	68.746	12.546	2.864	12.546	N/A

	COMPANY ACTUAL	
	BEFORE	AFTER
POLLUTANT	CONTROLS	CONTROLS
PM	0.114	0.114
PM10	0.114	0.114
SOx	0.009	0.009
NOx	1.500	1.500
VOC	0.083	0.083
CO	1.260	1.260

*This Source is class "Registered (Emission Statement Required)" according to potential VOC and NOx emissions.